

## ANALYTICAL SUMMARY REPORT

June 01, 2012

Atkins North America Missoula  
1120 Cedar St  
Missoula, MT 59802-3911

Workorder No.: B12052486

Quote ID: B2325 - East Poplar

Project Name: Poplar PWS

Energy Laboratories Inc Billings MT received the following 4 samples for Atkins North America Missoula on 5/29/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B12052486-001	4298-COP1-UNT1	05/29/12 9:30	05/29/12	Drinking Water	Anions by Ion Chromatography Solids, Total Dissolved
B12052486-002	4298-COP1-TRE1	05/29/12 10:00	05/29/12	Drinking Water	Same As Above
B12052486-003	4298-COP1-DIST	05/29/12 10:30	05/29/12	Drinking Water	Same As Above
B12052486-004	4298-COP4-UNT1	05/29/12 9:00	05/29/12	Drinking Water	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on an as received basis unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12052486-001  
**Client Sample ID** 4298-COP1-UNT1

**Report Date:** 06/01/12  
**Collection Date:** 05/29/12 09:30  
**DateReceived:** 05/29/12  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1180	mg/L		10		A2540 C	05/30/12 13:03 / ser
<b>INORGANICS</b>							
Chloride	231	mg/L	D	2		E300.0	05/31/12 14:19 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12052486-002  
**Client Sample ID** 4298-COP1-TRE1

**Report Date:** 06/01/12  
**Collection Date:** 05/29/12 10:00  
**DateReceived:** 05/29/12  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1200	mg/L		10		A2540 C	05/30/12 13:03 / ser
<b>INORGANICS</b>							
Chloride	248	mg/L	D	2		E300.0	05/31/12 14:30 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12052486-003  
**Client Sample ID** 4298-COP1-DIST

**Report Date:** 06/01/12  
**Collection Date:** 05/29/12 10:30  
**DateReceived:** 05/29/12  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1180	mg/L		10		A2540 C	05/30/12 13:03 / ser
<b>INORGANICS</b>							
Chloride	247	mg/L	D	2		E300.0	05/31/12 14:41 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12052486-004  
**Client Sample ID** 4298-COP4-UNT1

**Report Date:** 06/01/12  
**Collection Date:** 05/29/12 09:00  
**DateReceived:** 05/29/12  
**Matrix:** Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1160	mg/L		10		A2540 C	05/30/12 13:03 / ser
<b>INORGANICS</b>							
Chloride	227	mg/L	D	2		E300.0	05/31/12 14:52 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula

**Report Date:** 06/01/12

**Project:** Poplar PWS

**Work Order:** B12052486

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b>							Batch: TDS120530A		
<b>Sample ID: MBLK4</b>	Method Blank				Run: BAL #11_120530B				05/30/12 13:00
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
<b>Sample ID: LCS4</b>	Laboratory Control Sample				Run: BAL #11_120530B				05/30/12 13:00
Solids, Total Dissolved TDS @ 180 C	2020	mg/L	10	101	90	110			
<b>Sample ID: B12052462-002A MS</b>	Sample Matrix Spike				Run: BAL #11_120530B				05/30/12 13:00
Solids, Total Dissolved TDS @ 180 C	2290	mg/L	10	99	90	110			
<b>Sample ID: B12052462-006A DUP</b>	Sample Duplicate				Run: BAL #11_120530B				05/30/12 13:02
Solids, Total Dissolved TDS @ 180 C	273	mg/L	10		90	110	2.9	5	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula

**Report Date:** 06/01/12

**Project:** Poplar PWS

**Work Order:** B12052486

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E300.0</b>							Analytical Run: IC203-B_120531A		
<b>Sample ID: ICV053112-11</b>	Initial Calibration Verification Standard								05/31/12 12:50
Chloride	24.6	mg/L	1.0	98	90	110			
<b>Method: E300.0</b>							Batch: R186133		
<b>Sample ID: ICB053112-12</b>	Method Blank								05/31/12 13:01
Chloride	ND	mg/L	0.2						
<b>Sample ID: LFB053112-13</b>	Laboratory Fortified Blank								05/31/12 13:12
Chloride	24.7	mg/L	1.0	99	90	110			
<b>Sample ID: B12052329-002AMS</b>	Sample Matrix Spike								05/31/12 16:21
Chloride	54.0	mg/L	1.0	103	90	110			
<b>Sample ID: B12052329-002AMSD</b>	Sample Matrix Spike Duplicate								05/31/12 16:33
Chloride	54.0	mg/L	1.0	103	90	110	0.1	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

# Workorder Receipt Checklist



Atkins North America Missoula

B12052486

Login completed by: Jill M. Lippard

Date Received: 5/29/2012

Reviewed by: BL2000\jklir

Received by: jrj

Reviewed Date: 5/30/2012

Carrier Hand Del  
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Container/Temp Blank temperature: 0.0°C On Ice, Temp Blank

Water - VOA vials have zero headspace? Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Contact and Corrective Action Comments:

None





# Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: <b>ATKINS NA INC.</b>		Project Name, PWS, Permit, Etc.: <b>POPULAR PWS</b>		Sample Origin: State: <b>MT</b>		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address: <b>MISSOULA, MT 59802</b>		Contact Name: <b>BRANT MCGRAH</b>		Email: <b>BRANT.MCGRAH@ATKINSGLOBAL.COM</b>		Sampler: (Please Print) <b>B. MCGRAH</b>	
Invoice Address: <b>SAME</b>		Invoice Contact & Phone: <b>CHRIS HART 406 532-7275</b>		Purchase Order: <b>10004298</b>		Quote/Bottle Order:	
Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: <input type="checkbox"/> Other: <input type="checkbox"/> EDD/EDT (Electronic Data) Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		ANALYSIS REQUESTED		Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page Comments: <b>SEE SHAW for TAT</b>		Shipped by: <b>Hand</b> Receipt Temp: <b>0.0 °C</b> On Ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Custody Seal On Bottle: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Signature Match: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Number of Containers Sample Type: A W S V B O DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water		SEE ATTACHED Standard Turnaround (TAT)		R U S H		LABORATORY USE ONLY <b>8705486-001</b> <b>-002</b> <b>-003</b> <b>-004</b>	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.) 1 <b>4298-COP1-UNT1</b> 2 <b>4298-COP1-TRE1</b> 3 <b>4298-COP1-DIST</b> 4 <b>4298-COP4-UNT1</b> 5 6 7 8 9 10		Collection Date 1 <b>5/29/12</b> 2 3 4 5 6 7 8 9 10		Collection Time 1 <b>930</b> 2 <b>1000</b> 3 <b>1030</b> 4 <b>900</b> 5 6 7 8 9 10		MATRIX 1 <b>W</b> 2 <b>W</b> 3 <b>W</b> 4 <b>W</b> 5 6 7 8 9 10	
Relinquished by (print): <b>BRANT E. MCGRAH</b>		Date/Time: <b>5/29/12 1620</b>		Received by (print): <b>BRANT E. MCGRAH</b>		Date/Time: <b>5/29/12 1620</b>	
Relinquished by (print): <b>BRANT E. MCGRAH</b>		Date/Time: <b>5/29/12 1620</b>		Received by (print): <b>BRANT E. MCGRAH</b>		Date/Time: <b>5/29/12 1620</b>	
Sample Disposal: <b>Return to Client</b>		Lab Disposal: <b>X</b>		Received by Laboratory: <b>BRANT E. MCGRAH</b>		Date/Time: <b>5/29/12 1620</b>	

**Custody Record MUST be Signed**

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.